FIELD RECORDING UNIT CONTROL PROGRAM

esNavi

User's Manual

Thank you for purchasing the Field Recording Unit es8.
Please read this manual before using the product.
Then, keep the manual handy.

Notes:

The company name or product name described on this manual is a trademark or a registered trademark.
Further, the contents of this manual may be changed without notice.

TEAC
TEAC Corporation
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Manual Part Number D00860600X

Revision History

Revision	Date	Description
1.0.0	Dec. 2004	First edition
1.0.1	Dec. 2004	esNavi Version 1.00 covered
1.0.2	Jan. 2005	Option functions added
1.0.3	Jan. 2005	Program installation procedure added, Cautions for unguaranteed operation of USB HUB added, explanations for trigger recording function added
1.0.4	Mar. 2005	<System> added
1.1.0	July. 2005	X-Y display/FFT display added, GPS information added
1.1.1	July. 2006	Company name is changed to TEAC Corporation

For Safe Use

	This symbol designates the cautions (including warnings) to which you must pay attention.
	This symbol designates activity that is prohibited. This symbol indicates what is prohibited. (The left figure means “Disassemble is prohibited”)
	This symbol designates a mandatory action or activity to be performed. This symbol illustrates the nature of the action. (The left figure means, “Unplug power cord from the power outlet.”)

WARNING	A failure to observe the precautions indicated by this symbol may result in serious injury or death.
	■ **If an abnormality occurs,** continuing to work during the abnormal condition (e.g., smoke emission or a bad odor), could result in fire or electric shock. Turn the power supply off immediately and unplug the power cord from the power outlet. After you confirm that there is no (further) smoke emission, contact the TEAC customer service division for repair.
	■ **Do not open the cover** Do not remove the cover of this equipment. This could result in electrical shock. You may contact the TEAC customer service division for internal check or repair. Do not modify this equipment. This could result in fire or electrical shock.
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CAUTIONS	A Failure to observe the precautions indicated by this symbol may result in injury or property damage.
	■ **Unsuitable locations** Do not place the equipment at the following sites. It may result in fire or electrical shock. - in a place where the equipment may be exposed to oily smoke (e.g., smoke from cooking oil) or steam or where there is a moisture nearby. – in a humid or dusty places. - on an unstable surfaces, such as a tilted or unsteady table. – in a place where the equipment may be exposed to direct sun light ■ **Do not touch with wet hand** It may result in an electrical shock.
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About this manual

This manual describes how to operate esNavi exclusive control program for es8 running on a Windows PC.

Please read the es8 User's Manual carefully before using this program.

Rules for expressions in this manual

Items or messages shown in the PC program are indicated by such descriptions as **<MENU>** or **<Are you sure?>**.

The control button or selection items in the PC program are expressed by such descriptions as **[REC]**.

Index

Section 1 Preface **1**
1.1. Overview 1
1.2. Feature 1
1.3. Caution Item 1
Section 2 Program & Driver Installation **3**
2.1. Recommended Operating Environment for esNavi 3
2.2. Installing esNavi 3
2.3. Installing the Device Driver for es8 5
2.4. Disconnecting es8 from PC 7
Section 3 Configuration using esNavi **9**
3.1. Starting & Ending the Program 9
3.2. Configuring Record Settings 10
3.2.1. <File>: Setting the record destination 10
3.2.2. <System>: Setting of Sampling frequency and Clock 11
3.2.3. <Channel>: Setting of Channel 11
3.2.4. <Trigger>: Setting of Trigger record condition 12
3.2.5. <Comparator>: Setting of Comparator output 12
3.2.6. <Event>:Setting of Event 13
3.2.7. <View>: Setting of Waveform View 14
3.2.8. <XY>: Setting of the X-Y display 14
3.2.9. <FFT>: Setting of the FFT display 15
Section 4 Recording and Monitoring by esNavi **17**
4.1. Operations for Recording and Monitoring 17
4.2. Operations for Display 17
4.2.1. Operations to show waveform in display 18
4.2.2. Display of Max./Min./Averaging value 18
4.2.3. Display of channel property 19
4.2.4. Overwriting 20
4.2.5. Choosing display mode 21
Section 5 Recorded File List **25**
Section 6 Saving and Loading Setting Information **27**
Section 7 Other Operations **29**
Section 8 Functions of Option **31**

Section 1 Preface

1.1. Overview

The esNavi is an exclusive navigation program for a handy type of field recorder, es8, which allows you to record signals of 8 channels on a CompactFlash®(CF) memory card. Thanks to the esNavi program, you can create settings for a variety of parameters, viewing on the PC display, and saving data on the PC hard drive by connecting Windows PC through a USB cable.

The recorded file can be shown as a type of waveform by using the PL-D2860 ExtrTAFF program, which can be downloaded from the TEAC web site without charge, or the PL-S1001LX View program available in the marketplace.

1.2. Feature

- Can easily configure es8 recording condition by graphical user interface .
- Able to do es8 recording control in remote site.
- Bar meter and digital panel display are available, in addition to a waveform display of a maximum of 8 channels as a data monitor on the PC.
- A data file of TAFFmat or CSV format can be created on the PC hard drive, as recording data on CompactFlash®(CF) inserted in es8.
- Connecting or disconnecting the PC is possible, even while the es8 main unit is recording (in the case of CF memory card recording mode only). (You must boot the esNavi program after connecting and close it before disconnecting.)

1.3. Caution Item

CAUTIONS

- A general USB cable is required to connect the PC to the control es8. Please buy the following USB cable in the marketplace:

Es8 side: USB (type Mini-B) male

PC side: USB (type A) male

- The esNavi program doesn't have a function to show the wave form of the recorded data file. **A** PL-D2860 ExtrTAFF program, which can be downloaded from the TEAC web site without charge, or the PL-S1001LX View program is available in the marketplace for this function.

- Operations via USB HUB are not guaranteed. Please, connect the USB cable directly to the USB port of the PC main unit.

Note:

Section 2 Program & Driver Installation

This section explains the PC requirements for connection with es8, installation of the driver for es8 and the esNavi program.

2.1. Recommended Operating Environment for esNavi

CPU: Pentium 850 MHz or more

OS: Windows 2000/XP

Memory: 256MB or more recommended.

Free space on HDD: Requires free space exceeding the amounts of data files to be submitted

USB interface: USB1.1 or 2.0 interface compatible with OHC1 or UHCI

12Mbps Full Speed only available for the es8 side

CD-ROM drive: For reading the attached utility disk

2.2. Installing esNavi

Before connecting the PC to es8, insert the attached CD(Application Software CD-ROM T001107-00□) into the PC's CD-ROM drive.

esNavi - InstallShield Wizard
Welcome to the esNavi Setup program. This program will install esNavi on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel

1. The install wizard (see the left figure) will appear automatically as the auto-run action starts

In case it doesn't automatically, double click the CD-ROM icon to run the install wizard. Click [Next>] to show the next menu.

2. Input <Name:> and <Company:> and click [Next>] to show the next menu.

esNavi - InstallShield Wizard
Setup will install esNavi in the following directory.
To install to this directory, click Next.
To install to a different directory, click Browse and select another directory.
You can choose not to install esNavi by clicking Cancel to exit Setup.
Destination Directory
C:\Program Files\TEAC\esNavi
Browse...
< Back
Next >
Cancel

3. The destination directory, to which the program is installed, will appear. Click [Browse...] to change the directory. Click [Next>] to show the next menu.

esNavi - InstallShield Wizard
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.
Program Folders:
TEAC
Existing Folders:
TEAC
< Back
Next >
Cancel

4. This is a message for you to confirm whether you wish to create the <TEAC> folder under the directory, which was chosen previously. Click [Next>] to show the next menu.

esNavi - InstallShield Wizard
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Setup Type:
Complete
Target Folder:
C:\Program Files\TEAC\esNavi
User Information:
Name: CS
Company: TIC
< Back
Next >
Cancel

5. This is a message for you to confirm whether or not you are satisfied with the settings to start the program installation. Click [Next>] to start program installation.

esNavi - InstallShield Wizard
Setup has finished copying files to your computer.
Setup will now launch the program. Select your option below.
Yes, Launch the program file
Click Finish to complete Setup.
Finish

6. When the installation finishes, the message (see the left figure) will appear. Click [Finish] to close the installation wizard.

7. The contents of the directory to which the program was installed are shown in the figure on the left.

2.3. Installing the Device Driver for es8

In this section, the procedure to connect es8 with the PC initially is explained using Windows XP as the example.
The device driver for es8 is included in the CD-ROM.

1. Turn the es8 power supply on.

CAUTIONS

The es8 requires an AC adaptor to be attached and an external battery or internal cell battery as a power supply. The PC cannot be accessed by USB cable for use as a power resource.

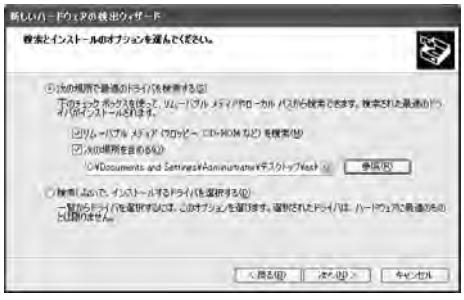
A USB cable is not attached to es8 as a standard accessory. Please, purchase a general USB cable in the marketplace.

2. Insert the attached CD-ROM into the PC. Alternatively, copy the driver folder from the attached CD-ROM to the local PC hard drive.

3. Connect es8 to the PC's USB interface by a USB cable.

4. Shortly after the connection has been established, < Welcome to the Found New Hardware Wizard > will appear.

5. Check the <install from the list or specific location [Advanced]> check box and click on the [Next(N)] button.



6. Check the <Search for the best driver in these locations> box and click on the [Refer(R)] button to specify the directory of the CD-ROM or the PC where the es8 driver is.

7. Click on the <Next(N)> button to start the USB driver installation for es8.

8. After the driver file has finished copying, the setup finished dialog box will appear. Click on the [Finish] button to end the driver installation.

9. To confirm whether or not the driver was properly installed, right click on My Computer on Desktop and choose [Property] to show the <System Property> dialogue.

Click on [Device Manager(D)] of <Hardware> tab sheet to show <Device Manager> dialogue.

Please check to ensure that <TEAC Device> - <TEAC Field Recording Unit es8> is shown in the <Device Manager> dialogue.

If it doesn't appear properly, please check the cable connection between es8 and the PC, and install the driver again.

2.4. Disconnecting es8 from PC

To disconnect es8 when it is connected to a PC by USB cable, use the following procedure.

CAUTIONS

Disconnect es8 only when the esNavi program is being closed.

1. Right click on the <Safely Remove Hardware> icon, located on the lower right side of the screen, and then click [Safely Remove Hardware (S)].

2. The <Safely Remove Hardware> window will appear.

3. Choose [TEAC Field Recording Unit es8] from <Hardware Device (H) :> and click on [STOP(S)].

4. After a while, the <Stop a Hardware device> window will appear. Click [OK].

5. Confirm that the [TEAC Field Recording Unit es8] item is disappearing from <Safely Remove Hardware> before disconnecting the USB cable and es8 from the PC.

Note:

Section 3 Configuration using esNavi

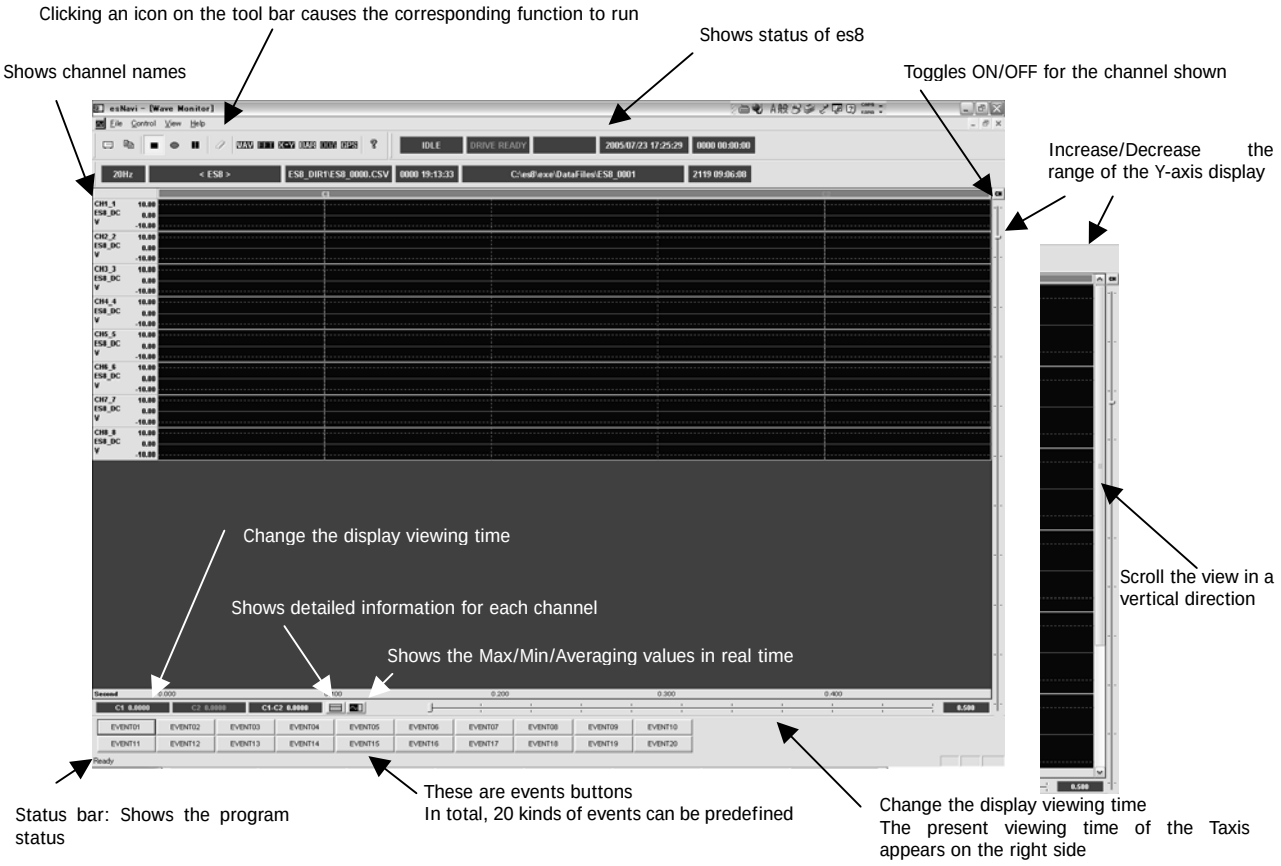
In this section, esNavi's main display and procedure for establishing the optimum es8 settings for recording are explained.

3.1. Starting & Ending the Program

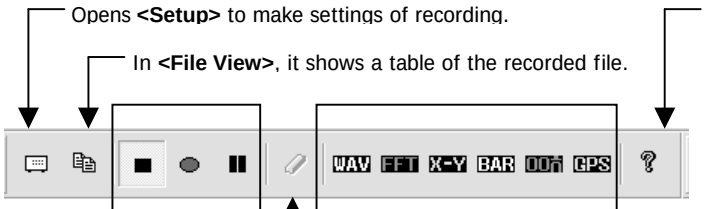
Connect es8 to the PC.

Double click the esNavi.exe icon to run the esNavi program and the main display will appear.

In the main display, the following operations are available.


Clicking an icon on the tool bar causes the corresponding function to run
Shows status of es8
Shows channel names
Toggles ON/OFF for the channel shown
Increase/Decrease the range of the Y-axis display
Change the display viewing time
Shows detailed information for each channel
Shows the Max/Min/Averaging values in real time
Scroll the view in a vertical direction
Status bar: Shows the program status
These are events buttons
In total, 20 kinds of events can be predefined
Change the display viewing time
The present viewing time of the Taxis appears on the right side

Tool Bar


Opens <Setup> to make settings of recording.
In <File View>, it shows a table of the recorded file.
Shows version's information.
WAV FFT X-Y BAR 000 GPS
From left
STOP: Stops
REC: Starts recording
RECSTANDBY: the system goes into REC stand-by status
Clears peak hold value
Choose monitor display format
WAV: waveform format
FFT: FFT format
X-Y: X-Y display
BAR: Bar meter
000: digital panel
GPS: shows the status of the optional GPS unit

To end the program, click on upper right corner of the main window, or click [Exit] from [File] of the menu bar.

3.2. Configuring Record Settings

Click on the tool bar to show <Setup>.

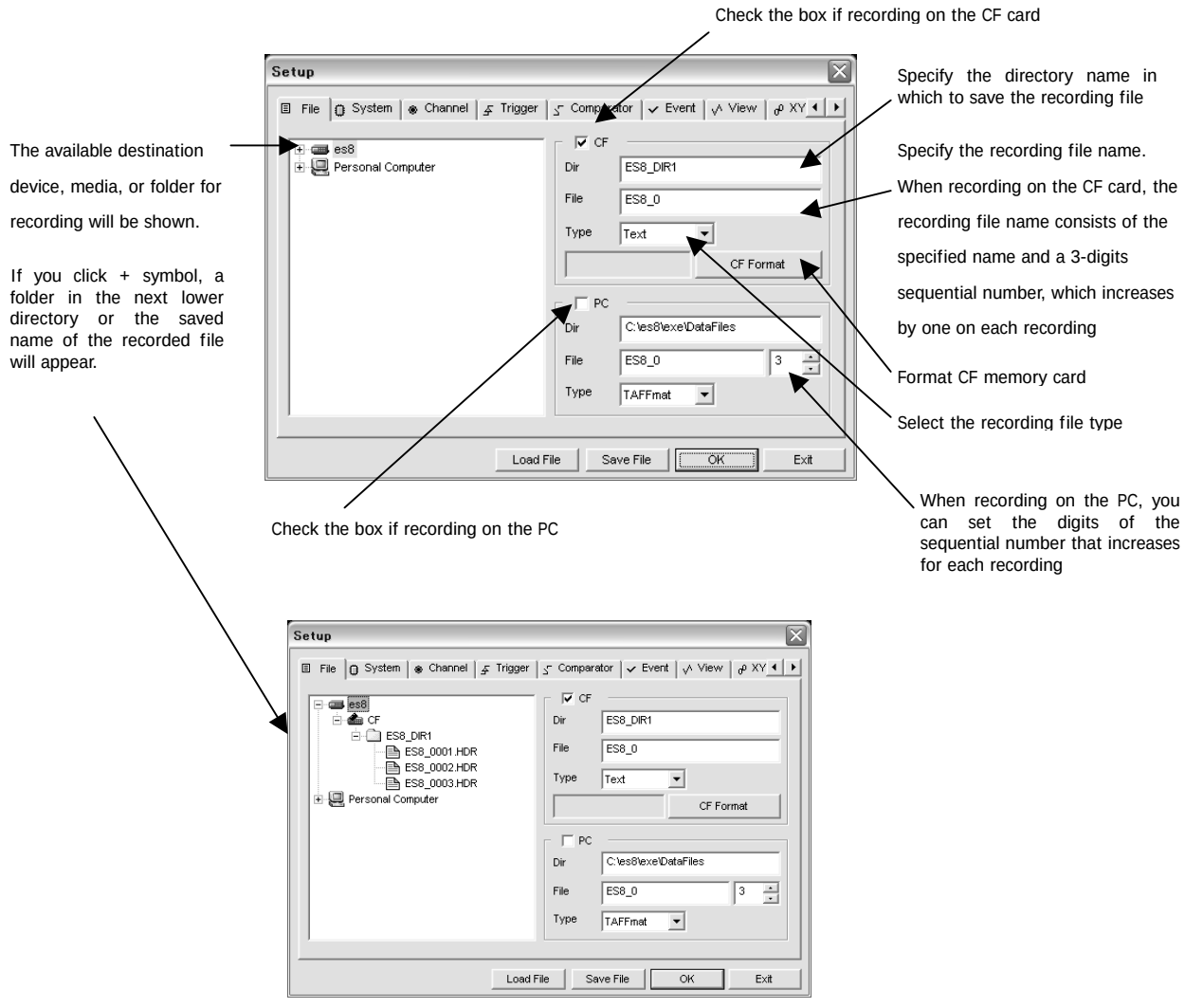
If you click a tab sheet shown in <Setup>, the corresponding setting menu will appear.

3.2.1. <File>: Setting the record destination

Please, choose the inserted CF memory card, the PC, or the simultaneous recording on the CF memory card plus the PC. In addition, you can create settings, such as destination directory name, recording file name, and recording type for each media.

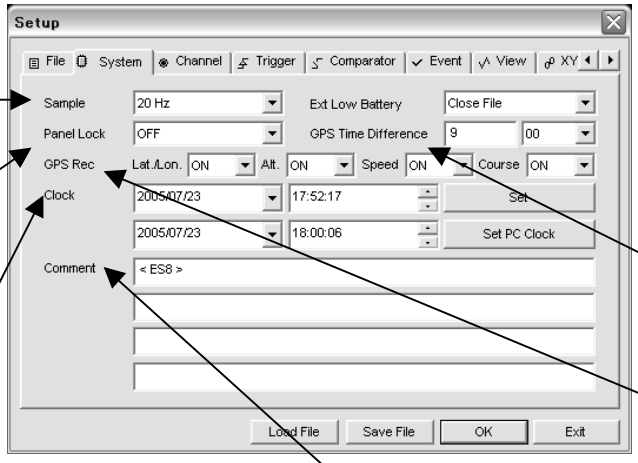
CAUTIONS

Please make sure to insert the CF memory card formatted by FAT16 before deciding to record data on the CF memory card.


Check the box if recording on the CF card
Setup
File
System
Channel
Trigger
Comparator
Event
View
XY
es8
Personal Computer
CF
Dir
ES8_DIR1
File
ES8_0
Type
Text
CF Format
PC
C:\es8\exe\DataFiles
3
TAFFmat
Load File
Save File
OK
Exit
Specify the directory name in which to save the recording file
Specify the recording file name. When recording on the CF card, the recording file name consists of the specified name and a 3-digits sequential number, which increases by one on each recording
Format CF memory card
Select the recording file type
When recording on the PC, you can set the digits of the sequential number that increases for each recording
The available destination device, media, or folder for recording will be shown.
If you click + symbol, a folder in the next lower directory or the saved name of the recorded file will appear.
Check the box if recording on the PC
ES8_0001.HDR
ES8_0002.HDR
ES8_0003.HDR

3.2.2. <System>: Setting of Sampling frequency and Clock

Please, choose the inserted CF memory card, the PC, or the simultaneous recording on the CF Memory card plus PC. In addition, you can create setting, such as destination directory name, recording file name, and recording type for each media.



Set the sampling frequency.

If you choose [ON], panel operation of es8 will be disabled.

Actions to take when the external power supply battery is low
[Close File] Stop recording and start file closing. If the external supply recovers, it will restart to save as a new file automatically.
[Continuous] Keeps on recording by internal battery. If the external supply recovers, it switches to the external one and continues to save. If the external one does not recover, the system stops saving and begins file closing when the internal battery reaches a low state.

Set the offset value between world standard time and local time when using the optional GPS unit. Input a value of 9 00, as shown here, to set to Japan standard time.

In the case of using optional GPS unit, choose whether or not to record the following information. (Set **[ON]** to record)
Lat./Lon.: Latitude/Longitude
Alt.: Altitude of antenna location
Speed: Speed
Course: Course
If the storage destination is PC, this information will not be recorded.

Set the clock.

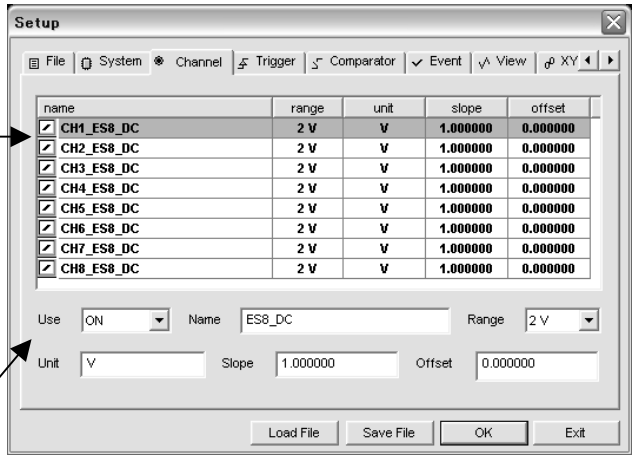
If you click **[Set]**, setting the time shown on the left side of the button will be set on es8.

If you click **[Set PC Clock]**, setting the PC time shown on the left side of the button will be set on es8.

Comments (text) that will be recorded on the header file can be input.

3.2.3. <Channel>: Setting of Channel

You can set record ON/OFF, input range, slope value, and offset value for each channel.



Click channel, which you might want to set, in order to highlight it.

A Setting is available for the highlighted channel.

Use: To set the recording channel, choose **[ON].**

Name: Input channel name.

Range: Choose input range.

Unit: Input physical quantity unit.

Slope: Input slope value.

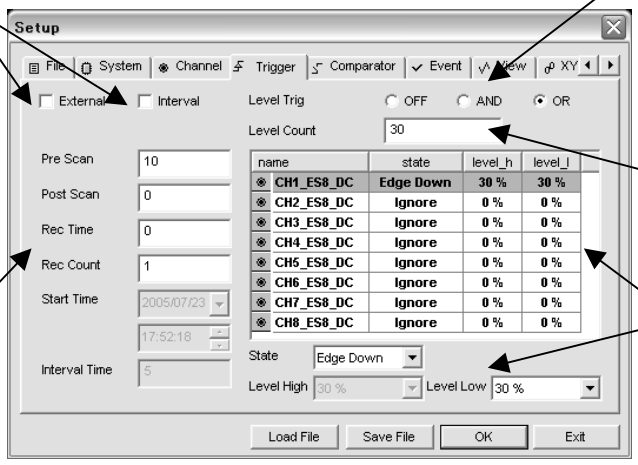
Offset: Input offset value.

3.2.4. <Trigger>: Setting of Trigger record condition

You can choose trigger recording mode and set the condition. Please click the channel to create settings of the highlighted channel.

External: Check the box if you are using the external trigger.
Interval: Check the box if you are doing interval recording.

To record by trigger, es8 must always be in recording standby (REC STANDBY) status after trigger setting. In the case of external trigger without pre-trigger setting, it is not necessary to be in recording stand-by status.



Set logic of level trigger.
OFF: don't use level trigger.
AND: Level trigger will occur when all conditions, set for each channel, are satisfied.
OR: Level trigger will occur when either of the conditions, set for each channel, is satisfied.

Level trigger will occur when the condition has been satisfied the number of times set in Level Count.

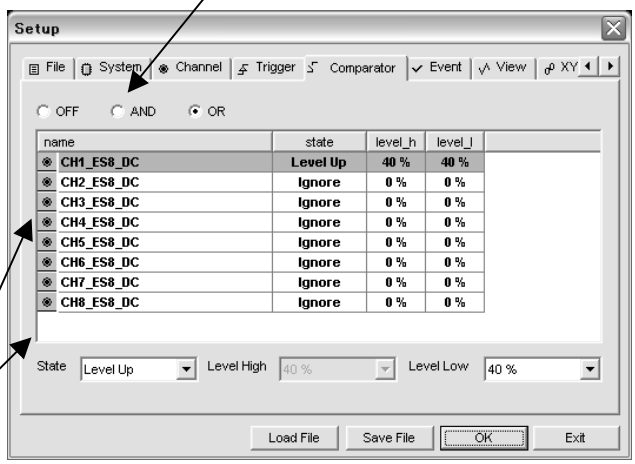
Set monitor conditions for each channel. Click the channel to choose, and select the condition to be set for the channel from the list box below.
State: Choose pass condition of trigger level, such as **[Ignore], [Edge Up], [Edge Down], [Window In], and [Window Out].**
Level High/Level Low: Set threshold level. In the case of Window, set the upper and lower limits.

Pre Scan: Set the pre-trigger area in the scan number
Post Scan: Set the post-trigger area in the scan number
Rec Time: Set the recording time after trigger occurs (unit:sec)
Rec Count: Set the repetition counts of recording
Start Time: Set the starting time of recording
Interval Time: Set the time from the end of recording until the next recoding starts in case of interval recording (unit:sec)

3.2.5. <Comparator>: Setting of Comparator output

Set the comparator output conditions. Click the channel to create the setting for the highlighted channel.

Set logic of comparator output conditions.
OFF: don't use comparator output
AND: Level trigger will occur when all conditions, set for each channel, are satisfied.
OR: Level trigger will occur when either of the conditions, set for each channel, is satisfied.

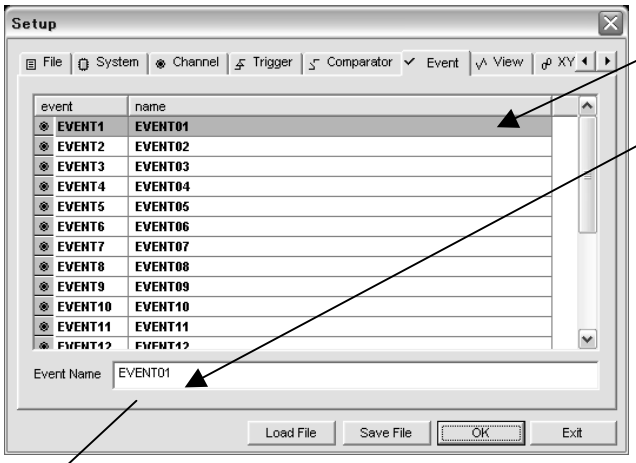


Set monitor conditions for each channel. Click the channel to choose, and select the condition to be set for the channel from the list box below.

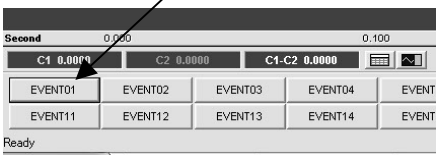
State: Choose pass condition of trigger level, such as **[Ignore], [Level Up], [Level Down], [Window In],** and **[Window Out]**.
Level High/Level Low: Set threshold level. In the case of Windows, set upper and lower limits.

3.2.6. <Event>:Setting of Event

You can configure a maximum of 20 kinds of events and record the data of the recording file. Each event's information is recorded on the header file.



Click and choose the event number, on which the event name is set, and input characters into **<Event Name>.**



If you press **[OK]** to establish input, the event name will be shown on the event button in the lower portion of the main display.

Example of header files of PC recording when the event button is clicked

DATASET ES8_0001

VERSION 1

SERIES CH1_ES8_DC,CH2_ES8_DC,CH3_ES8_DC,CH4_ES8_DC,CH5_ES8_DC,CH6_ES8_DC,CH7_ES8_DC,CH8_ES8_DC

DATE 07-23-2005

TIME 18:54:00.00

RATE 20.000000

VERT_UNITS V,V,V,V,V,V,V,V

HORZ_UNITS Sec

COMMENT < ES8 >

NUM_SERIES 8

STORAGE_MODE INTERLACED

FILE_TYPE INTEGER

SLOPE 0.000080,0.000080,0.000080,0.000080,0.000080,0.000080,0.000080,0.000080

X_OFFSET 0.000000

Y_OFFSET 0.000000,0.000000,0.000000,0.000000,0.000000,0.000000,0.000000,0.000000

NUM_SAMPS 420

DATA

DEVICE PC(es8)

MARK 212,272,340

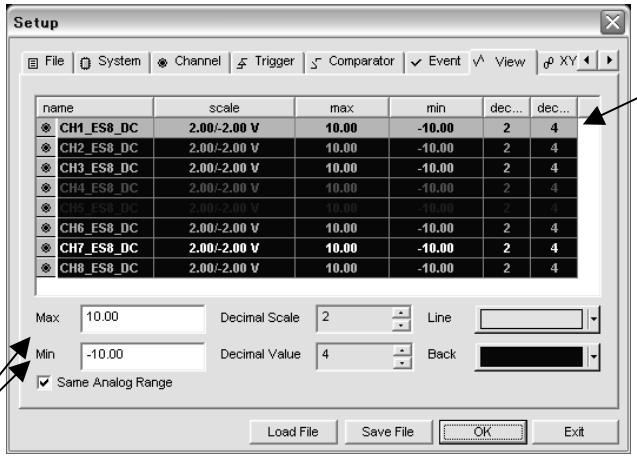
EVENT1 EVENT01,212

EVENT4 EVENT04,272

EVENT6 EVENT06,340

3.2.7. <View>: Setting of Waveform View

Set Y-axis scale, graph line, and background color of waveform view. Click the channel to create the setting of the highlighted channel.



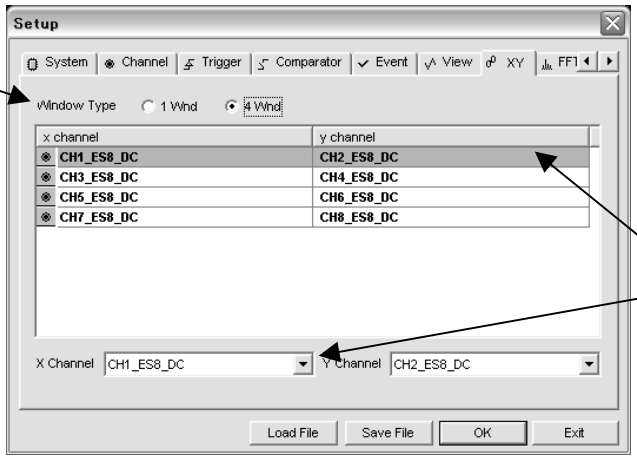
Click and choose the channel for which you might want to configure the display axis setting.
You can choose several items simultaneously, using **[Shift]** + Up/Down key or **[Ctrl]** + left mouse click.

Create settings of graph axis or value display for the chosen channel.
Max: Input the maximum value to be shown.
Min: Input the minimum value to be shown.
Decimal Scale: Specify the number of digits under the decimal point of the range information shown in the display.
Decimal Value: Specify the number of digits under the decimal point of the data display, such as digital display.
Line: Choose the color of the graph line.
Back: Choose the background color of the graph
Same Analog Range: Shows the rating of the input range as Max/Min values when the box is checked.
(If offset and coefficient have been set, the value would be arranged according to the value.)

3.2.8. <XY>: Setting of the X-Y display

Set the display mode and display channel of the X-Y display. Click the highlighted item to choose the channel for the X-axis and Y-axis.

Choose display mode.
<1Wnd>: Overwrite to display the data in one window
<4Wnd>: Display the data in 4 windows independently



Click to choose the X-axis channel and the Y-axis channel.

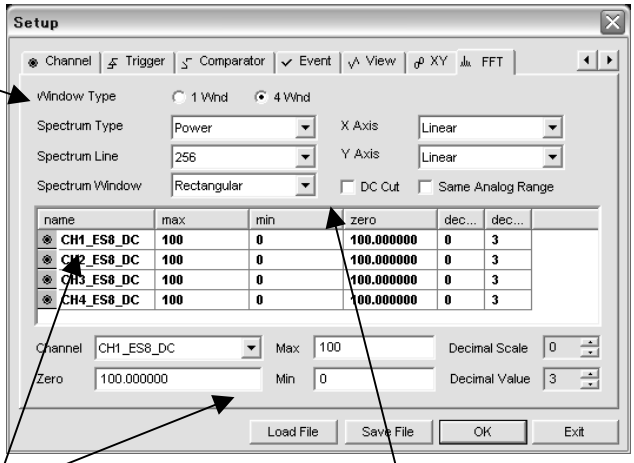
3.2.9. <FFT>: Setting of the FFT display

Set the FFT display for 4 channels that you might want to see. You can configure the display mode, each parameter of FFT display, and the display scale of highlighted item.

Choose display mode.

<1Wnd>: Overwrite to display the data in one window

<4Wnd>: Display the data in 4 windows



Click to choose

Channel: Choose display channel

Zero: Input value of 0db

Max: Input maximum value shown on the Y-axis

Min: Input minimum value shown on the Y-axis

Decimal Scale: Specify the number of digits under the decimal point of the range information shown in the display

Decimal Value: Specify the number of digits under the decimal point of the “data display”.

Choose the channel of the channel-axis and the channel of the Y-axis

Spectrum Type: Choose the FFT type

Spectrum Line: Choose the FFT display resolution

Spectrum Window: Choose the FFT window function

X Axis: Choose the X-axis display scale

Y Axis: Choose the Y-axis display scale

DC Cut: If the box is checked, data from which the DC element is cut off will be shown

Same Analog Range: If the box is checked, the rating of the input range will be shown as Max/Min values

Note:

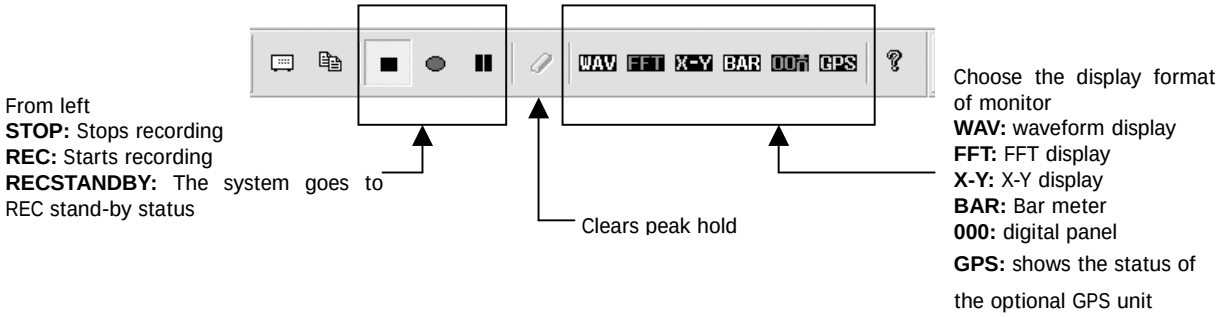
Section 4 Recording and Monitoring by esNavi

You can record while monitoring data after finishing the required setting.

4.1. Operations for Recording and Monitoring

To start or stop recording and choose the monitor mode, click the corresponding icon on the Tool Bar.

Tool Bar

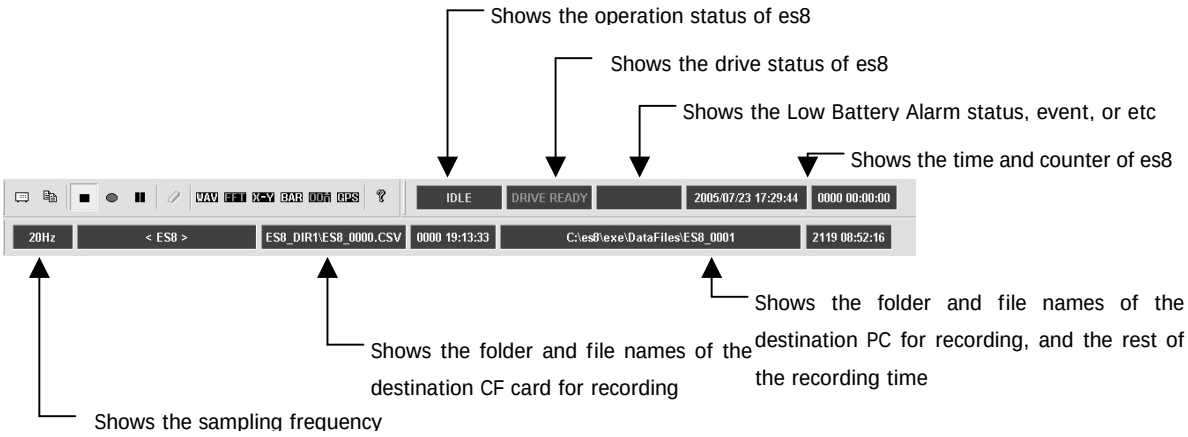

WAV FFT X-Y BAR 000 GPS
From left
STOP: Stops recording
REC: Starts recording
RECSTANDBY: The system goes to REC stand-by status
Clears peak hold
Choose the display format of monitor
WAV: waveform display
FFT: FFT display
X-Y: X-Y display
BAR: Bar meter
000: digital panel
GPS: shows the status of the optional GPS unit

注意

To do trigger recording on a preset condition, click ⏸ on the tool bar to make the system go to REC stand-by status, as well as the operations in the main unit.

4.2. Operations for Display

The data is being shown as a waveform while REC is on stand-by or recording.


Shows the operation status of es8
Shows the drive status of es8
Shows the Low Battery Alarm status, event, or etc
Shows the time and counter of es8
IDLE
DRIVE READY
2005/07/23 17:29:44
0000 00:00:00
20Hz
< ES8 >
ES8_DIR1\ES8_0000.CSV
0000 19:13:33
C:\es8\exe\DataFiles\ES8_0001
2119 08:52:16
Shows the folder and file names of the destination PC for recording, and the rest of the recording time
Shows the folder and file names of the destination CF card for recording
Shows the sampling frequency

4.2.1. Operations to show waveform in display

Change of display contents can be done while monitoring is being displayed.

However, Data reading using the cursor is available only for recording idle status (IDLE status).

Click CH to display the channel selector.

ON/OFF of display channel, changing the order of display, and fitting to display are available.

Extend the display in the Y-axis

Changes the display time per screen.

Shows the cursor location time and difference of C1/C2.

Click to show Max/Min/Averaging values of each channel.

Click to show the channel property.

4.2.2. Display of Max./Min./Averaging value

4.2.3. Display of channel property

By grasping the left end of the channel property and doing a drag & drop, you can place it where you might want to display it.

In the channel property, the data of the C1/C2 cursor location can be examined in detail.
The C1/C2 cursor location can be controlled by dragging it with the mouse.

Channel: number of channel

DispRange(max): maximum value in the Y-axis display range

DispRange(min): minimum value in the Y-axis display range

Cursor(C1): Y-axis value of the C1 cursor location

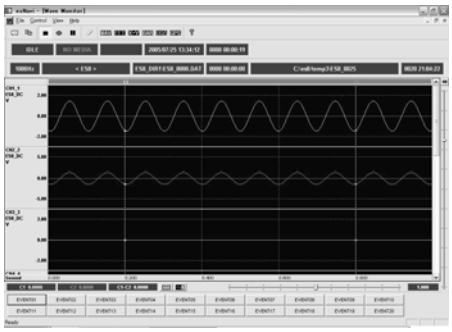
Cursor(C2): Y-axis value of the C2 cursor location

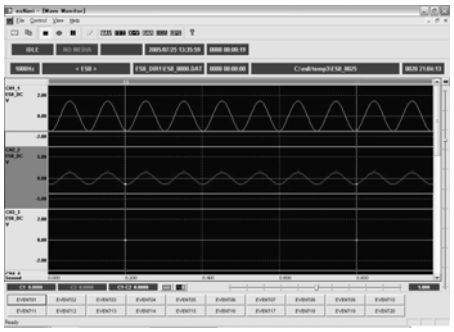
Abs(C1-C2): difference of the C1-C2 cursor location in the Y-axis value

4.2.4. Overwriting

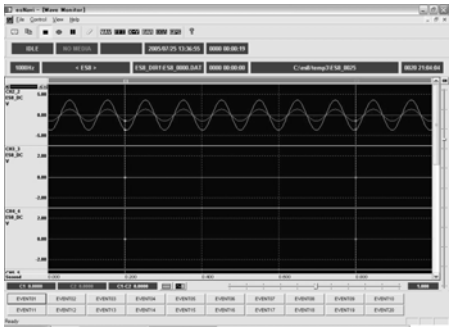
Example: By dragging & dropping Channel 2 on Channel 1 to overwrite.

1. Place cursor on a portion of the displayed channel name, and drag it to channel 1. (A rectangular frame will be shown.)



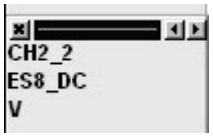


2. By dropping it on channel 1, the screen will change to overwriting display.



3. Click to disable overwriting.

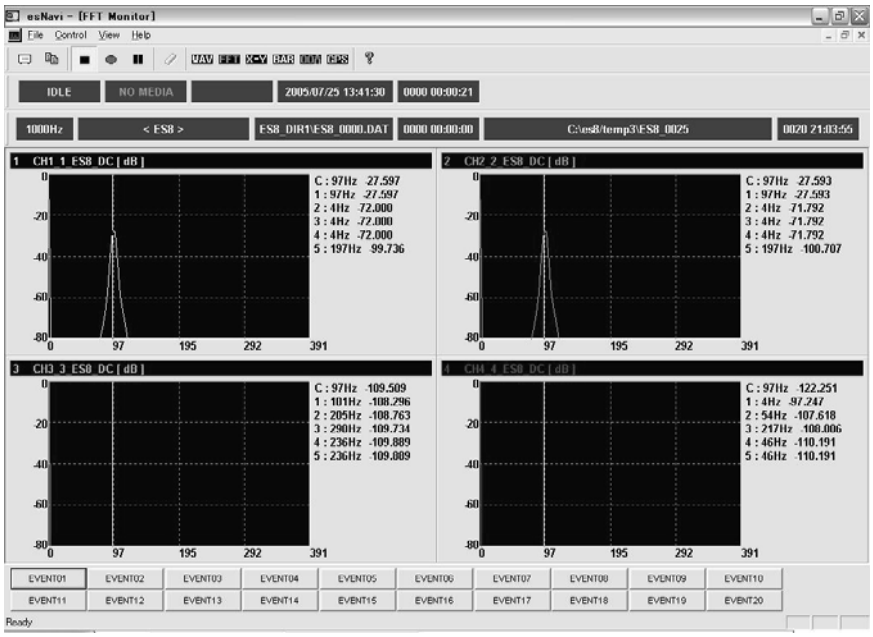
Click to change the display order of overwriting.



4.2.5. Choosing display mode

Click

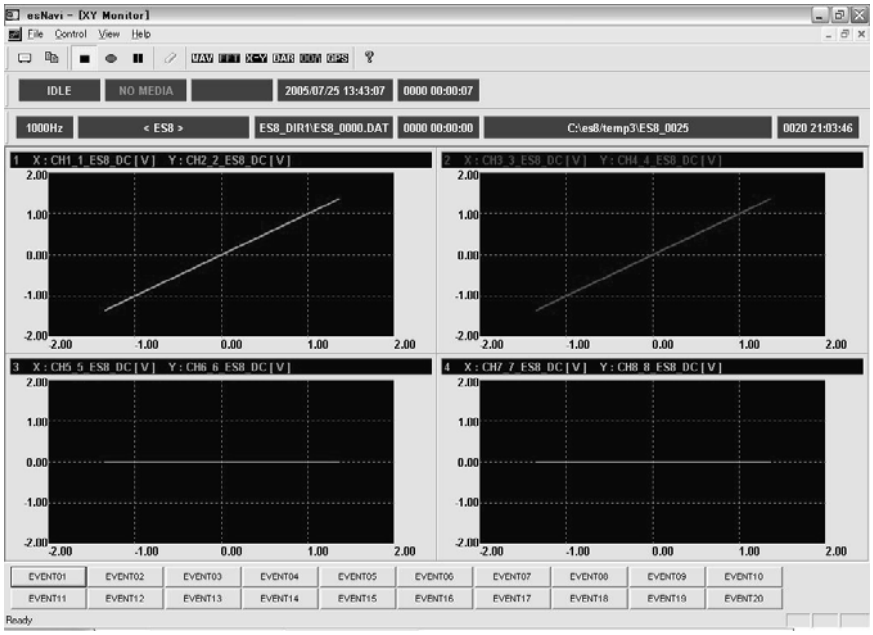
to show FFT.



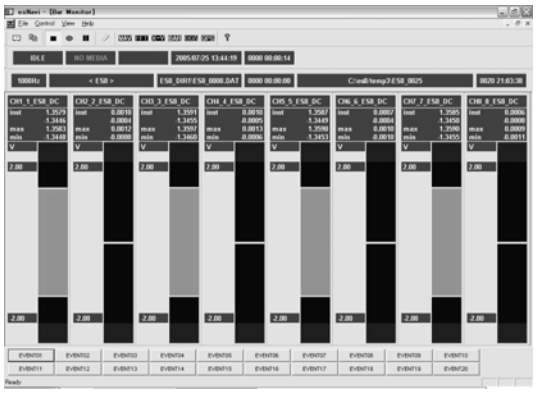
Show 5 data of the cursor location value and peak value.

Click

to show the X-Y graph.

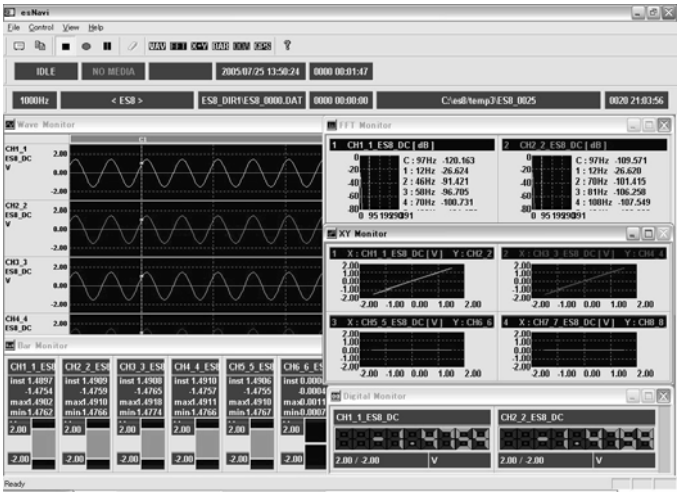

esNavi - [XY Monitor]
File Control View Help
IDLE
NO MEDIA
2005/07/25 13:43:07
0000 00:00:07
1000Hz
< ES8 >
ES8_DIR1\ES8_0000.DAT
0000 00:00:00
C:\es8/temp3\ES8_0025
0020 21:03:46
1 X : CH1 1 ES8 DC [V] Y : CH2 2 ES8 DC [V]
2 X : CH3 3 ES8 DC [V] Y : CH4 4 ES8 DC [V]
3 X : CH5 5 ES8 DC [V] Y : CH6 6 ES8 DC [V]
4 X : CH7 7 ES8 DC [V] Y : CH8 8 ES8 DC [V]
EVENT01 EVENT02 EVENT03 EVENT04 EVENT05 EVENT06 EVENT07 EVENT08 EVENT09 EVENT10
EVENT11 EVENT12 EVENT13 EVENT14 EVENT15 EVENT16 EVENT17 EVENT18 EVENT19 EVENT20
Ready

Click to show the Bar meter.



Click to show the digital panel.

You can change the size and location of the waveform display, bar meter, and digital panel display, and arrange and combine them to show.



Note:

Note:

Section 5 Recorded File List

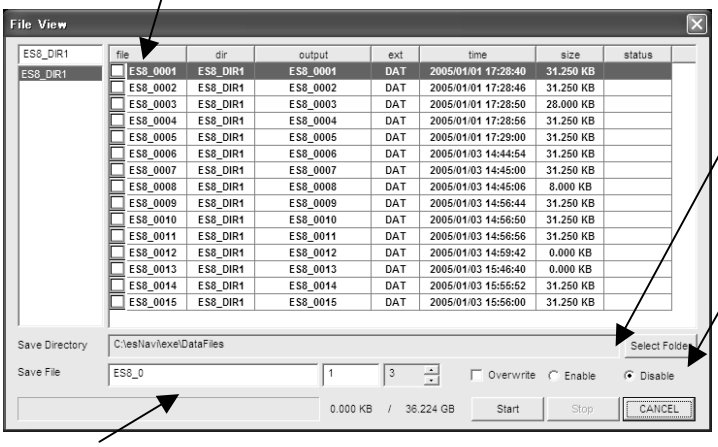
In esNavi, a table of files that were recorded on the CF memory card can be shown.

You can choose the files that you might want to submit from the list and name them to save on the PC.

These recorded files can be shown in a type of waveform using PL-D2860 ExtrTAFF, which can be downloaded from the TEAC web site without charge, or the PL-S1001LX View program available in the marketplace.

Click on Tool Bar to show <File View>.

Check the box of the file that you might want to submit.



Specify the destination folder of the PC

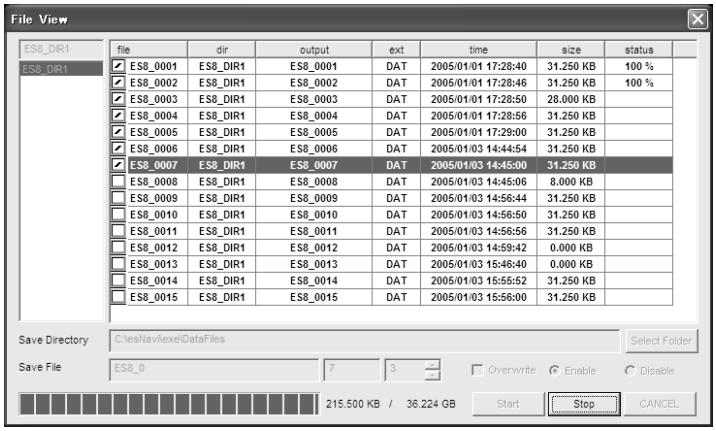
Choose either of select **<Enable>** /unselect **<Disable>**.

If you check the box of **<Overwrite>**, the system will automatically overwrite the existing file with the new one if a file of the same name already exists.

Set the characters and values, such as file name(ES8_0 in this example) of destination for recording, the default value(1) of the sequential number to be incremented, and the digits(3) of the sequential number. This setting value will be reflected in **<output>** display.

By finishing the selection and clicking [Start], the file submitting will begin.

<Status> of the file submitted will appear <100%>.



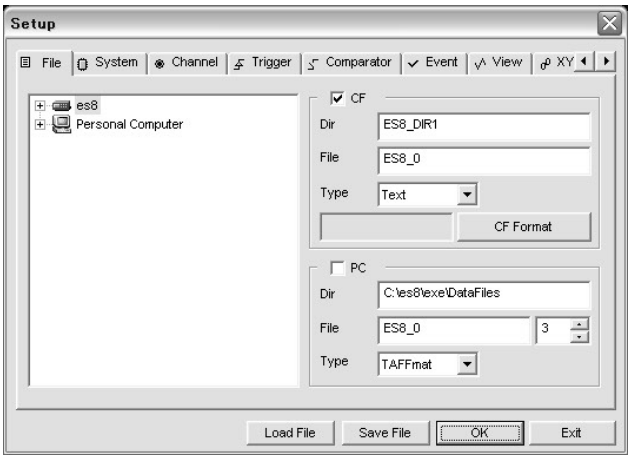
Note:

Section 6 Saving and Loading Setting Information

In esNavi, you can save the setting information on the PC and load it when required.

To save and load the setting information, click to show <Setup>.

If you click [Save File], the present setting information will be saved as a parameter file(.prm).
If you click [Load File], the saved parameter file will be loaded.



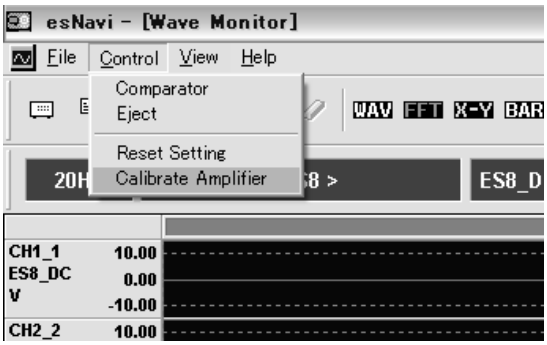
Note:

Section 7 Other Operations

In esNavi, the operations of es8 can be performed as follows.

Click [Control] on the menu bar.

If you click [Comparator], the contact signal will be outputted from es8
[Eject] must be clicked before pulling out the CompactFlash ® memory card inserted in the main unit.
If you click [Reset Setting], the present setting of es8 will be initialized.
If you click [Calibrate Amplifier], the es8 amplifier will be calibrated.



CAUTIONS

These operations, except [Comparator], can be done when es8 is in stop status.

Note:

Section 8 Functions of Option

An Optional GPS unit is available for es8.

GPS ユニット	Exclusive option for calibrating time, or recording location data (latitude, longitude, altitude, speed, course) by GPS.
es8 GPS UNIT (19192950-00)	Power for GPS unit can be supplied via the main unit of es8, as well as the attached AC adaptor.
	However, if it is supplied via the main unit operated by a cell battery, the operating time will be shortened remarkably.
	Receiver unit: Position co., ltd made, GSU-36AM Antenna: Cirocomm Technology Corp. made, GA-31
	AC adaptor for GPS attached

Connect es8 to the GPS unit. The following information will be shown in the esNavi program.

Click on the Tool Bar and click [START] to start the GPS unit data display.

To stop display, click [STOP].

The time of es8 that is shown in esNavi is the time calibrated by the data accepted by the GPS unit.

Note:

Note:

Recommendation of User Registration

Once you have completed the User Registration, we will send you information concerning product support and new products. In addition, we will create a specific updated version on this product, if we believe it to be necessary.

Choose one of the three following methods of registration:

■ On line registration

Please login to the following web site to register.

URL:http://www.tic.teac.co.jp

■ Registration by FAX

Please complete the required items in the following <User Registration Form>, and send it by

fax to:

(FAX: +81-422-52-1990)

■ Registration by Mail

Please complete the required items in the following <User Registration Form>, and copy and send it to the following address.

Address:

Overseas Sales Group, Business Solutions Company

TEAC CORPORATION

3-7-3 Naka-cho, Musashino-shi, Tokyo

180-8550 Japan

User Registration Form

Product Name	es8
Serial Number	No.
Purchase Date	
Company Name	
Division Name	
Person in charge	
Address	
TEL	
FAX	
E-mail	
Information via E-mail	□ Do not send.
Notes	